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BOUCARD

HOW TO GAIN FROM 80 TO 200  
POUNDS STERLING A YEAR BY  
INSTRUCTIVE AND AMUSING MEANS







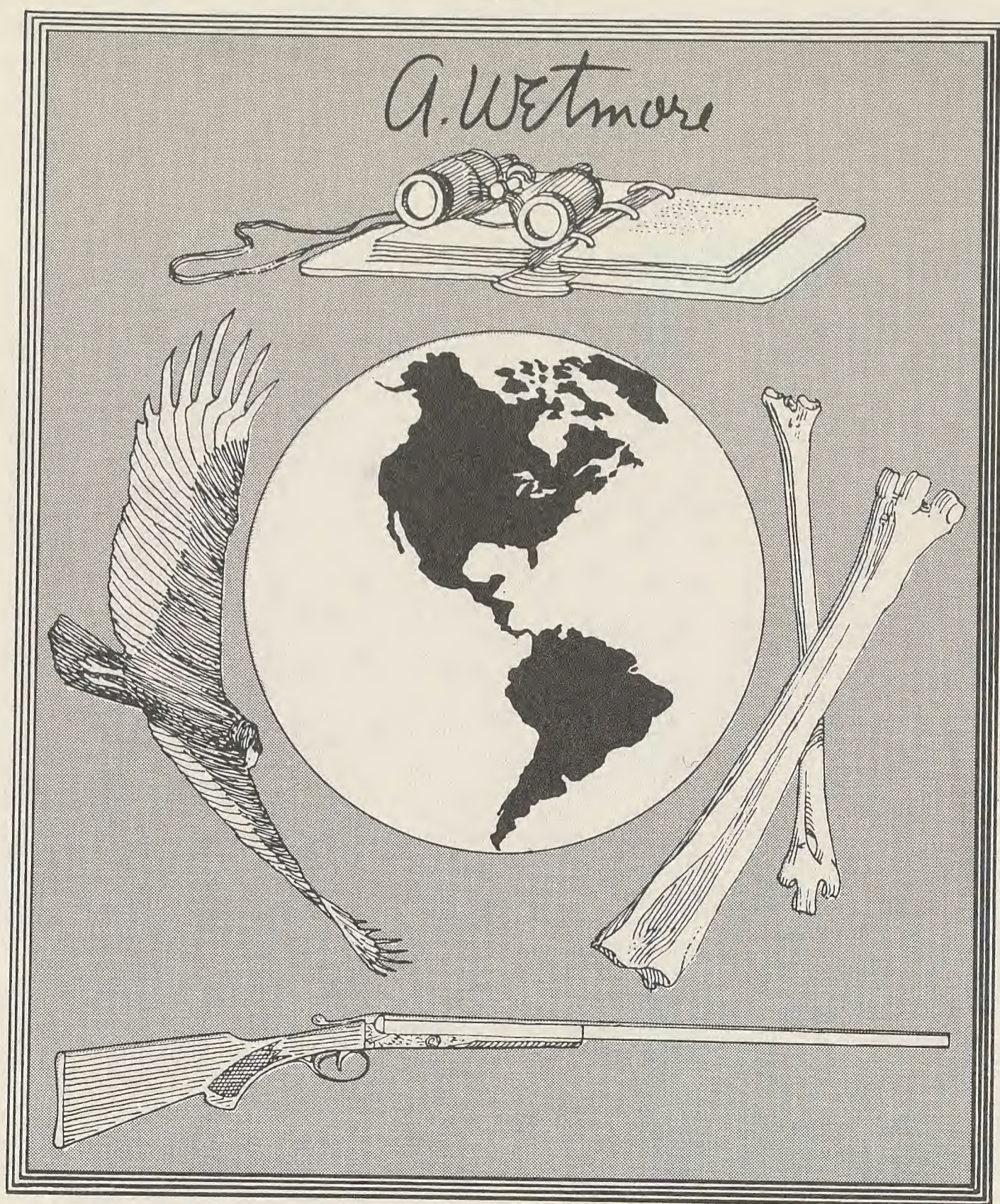
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HOW TO GAIN FROM

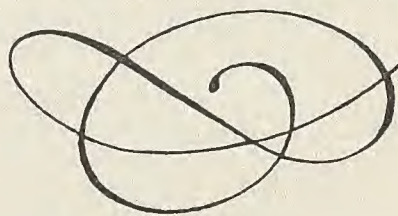
EIGHTY TO TWO HUNDRED POUNDS...



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Alexander Wetmore  
1946 *Sixth Secretary* 1953





*A. Wetmore*

# HOW TO GAIN

FROM

EIGHTY TO TWO HUNDRED POUNDS STERLING

A YEAR

BY INSTRUCTIVE AND AMUSING MEANS

OR

## INSTRUCTIONS

FOR

Collecting, preserving, and sending collections  
of natural history

By A. BOUCARD

1871

GENERAL NATURAL HISTORY AGENCY

55, Great Russell Street, Bloomsbury, W. C.

LONDON

Opposite the British Museum







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# NOTICE

This Guide having been printed in France, and the printer wishing to save time did not send me a proof for correction. Consequently many errors occur. I pray the reader to excuse them and to use the following table of corrections printed especially for that purpose.

PAGE	LINE	READ	INSTEAD OF
—	—	—	—
4	3	it is	it will be.
»	4	other	others.
»	5	neighbourhood	neighbourhood.
»	13	I shall now proceed	will proceed.
5	3	many	much.
»	10	the sum	sum.
»	19	they are collected	how to do them.
6	3.4	may be very	may very.
7	4	Camelions	Cameleones.



PAGE	LINE	READ	INSTEAD OF
—	—	—	—
8	7	to your house they should be taken	in your house, you will take them.
»	8	of the bottles	from the bottles.
»	14	in a linen cloth	with a linen cloth.
»	19	soak	soah.
9	10	Grass Hoppers	Grass hoppers.
»	16	it is between	it between.
10	11	through the right	on the right.
»	19	which cover the	which cover again.
11	2	the voyage	voyage.
»	3	should be put in	should be put to.
»	4	Insects	Insectes.
»	8	they have been	the have been.
»	15	very	mery.
»	16	to kill	of hilling.
»	17	thumb and finger	thumb finger.
12	3	They are	The are.
»	6	the wings shut	the wings bended.
»	13	fire	fine.
»	18	ripe fruits	wripe frints.
»	21	fire is to kill	fine is for hilling.
13	2	under	inder.



PAGE	LINE	READ	INSTEAD OF
—	—	—	—
»	3	that	thet.
»	12	fastened	fustened.
14	6	to the reefs	of the reefs.
»	21	under	inder.
16	1	much	munch.
»	14	an ant's nest	ant's nest.
»	15	will be	wrill be.
»	19	in a bottle	in bottle.
17	2	trees bushes or plants	tree bush or plant.
»	7	Crustaceae	Crustaceous.
18	6	other	others.
»	10	in the sun	by the sun.
»	11	bands of paper	band of papers.
19	4	in	in in.
20	21	to sell them on their	to sale them for their.
21	14	would be more	should be more.
»	20	other	others.
22	4	abundant	abundants.
»	4	the best	the lest.
24	4	They contain	They coutain.
»	17	Cotton	Coton.



PAGE	LINE	READ	INSTEAD OF
»	18	travellers	travelers.
»	20	at the cost	to the cost.
»	21	in their own country	in their country.
»	21	to make known	to make appreciate.
25	5	neglected	leaved off.
»	10.11	prizes	important prize.
26	3	Priced Utensils	Price Ustensils.
»	15	Pins for Insects	Pins for Insectes.
»	21	per sheet	per sheat.
»	24	Utensils	Ustensils.
27	13	Institutions and Authors	Institutions , Au- thors.
»	16	Museums	Museum.
»	17	all parts	all part.
28	11	reminds	rewinds.
»	13	Reptiles and Fishes	Reptiles of Fishes.
»	15	month	mouth.
»	17	Vancouver	Vaucouver.
»	19	and Panama	y Panama.



# PREFACE

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The object of this pamphlet, as indicated by its title, is to facilitate to every one the means of collecting, preserving and sending home collections of natural history.

By attending exactly to the following instructions, any resident in the less explored parts of Europe (1), and in Asia, Africa, America or Oceania, may collect

(1) In Europe, the following countries have been well explored : France, England, Germany, Belgium, Austria, and other neighbouring States.



easily in one year specimens worth eighty pounds sterling.

To obtain this result, it will be necessary only to employ the Sundays and others holidays in explorations in the neighbourhood of the place of residence, and collect Reptiles, Fishes, Insects, Shells, Seeds, etc., etc.

These scientific excursions will not only be very instructive and amusing; but, at the same time, very favourable to health and interests.

I have never enjoyed better health than during the fifteen years I was living in America as a traveller-naturalist.

I will proceed to show that, in one year, it will be easy to collect 250 specimens of Reptiles and Fishes, 4,000 Insects, and 600 Shells.

Supposing that not more than fifty days can be employed in making collections; this will require as fruit of each day's labour 5 Reptiles, 80 Insects, and 12 Shells.

The success of a collector must be very bad, or the country very poor, if a larger number than the above be



not obtained; because in all my voyages, I have always collected easily in one day, 40 Reptiles, 100 Insects, and 20 Shells, and sometimes much more.

Reptiles may be sold with facility at one shilling each, the Insects at one pound sterling the hundred, and the Shells at two pounds the hundred; so that it would only be necessary to collect very few Crustaceous, Seeds, bright-coloured Insects, or any thing else, to obtain for them sum of £ 13 in order to arrive at the total of £ 80 for the year. Therefore, if in fifty days you can obtain such a result, it is quite sure that any person who can dispose of all his time, will collect in the year objects of natural history worth £ 200, especially if he prepare Bird and Mammal Skins.

But, in the first as in the second case, to obtain this result, it is necessary to attend exactly to my instructions; the value of collections depending especially on the way how to do them as well as the perfect state of their preservation.

I invite all persons who intend collecting objects of



natural history to come and see me. I will supply them all the necessary instructions to facilitate their success, and be able to give a few practical lessons, which may be very useful to them. Persons living abroad can write to me.

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# REPTILES AND FISHES

The Reptiles are divided in four Orders.

- 1 — Chelonii, or Turtles and Tortoises.
- 2 — Saurii, or Lizards, Cameleones, etc.
- 3 — Ophidii, or Snakes.
- 4 — Batracii, or Frogs.

The Turtles and Tortoises are to be collected in the sea, the rivers, the lakes, near the water, and in the damp plains.

Other Reptiles must be searched for under stones, bark of decayed trees, on old walls, on branches and trunks of trees, near rivers and on the ground.

They may be taken with the hand or with nippers and put into a bottle with alcohol.

Several species of snakes are venomous; before taking it will be necessary to strike them one or two blows in the



middle of the back-bone with a very flexible stick, taking care not to spoil the skin.

Fish may be caught with fishing rods or nets, in the sea, rivers, lakes, etc., and put immediately in a bottle filled with alcohol, especially if you are in a hot country, and far from your residence.

When you get back in your house, you will take them out from the bottles, and clean them with a wet linen cloth; then make an incision (1) in the belly of the animal and you will put them in a large bottle containing alcohol or any other strong spirit.

Leave them in that bottle for a fortnight, then take them out, and clean them a second time. After which you will wrap each specimen separately with a linen cloth, flax, or any other soft substance, and pack them in a tin box; which must be well filled with flax to avoid all kind of friction among them during the voyage.

Then, you will pour some of the strongest alcohol or spirit you can get, enough to soak them with it. The box to be then soldered down.

(1) The object of this incision is to allow the penetration of the alcohol in the intestines.



## INSECTS

Insects are very numerous. Their body is formed of three distinct parts. The head, the thorax (1) and the abdomen (2).

They are divided by some authors into nine orders, by others into eleven and more; but the principal orders are eight, as follow.

- 1 — Coleoptera, or Insects known vulgarly as May Bug's, Horn beetles, Mites beetles, etc.
- 2 — Lepidoptera, or Butterflies, Moths.
- 3 — Orthoptera, or Tits, Ear Wigs, Grass hoppers.
- 4 — Hemiptera, or Bugs.
- 5 — Neuroptera, or Dragon flies.
- 6 — Hymenoptera, or Wasps, Drones, Bees, Ants, etc.
- 7 — Diptera, or Flies, Gad flies, Mosquitos, etc.
- 8 — Parasita, or Lice, etc.

(1) Thorax is the part which represent the middle of the animal; it between the head and the abdomen.

(2) Abdomen is the belly.



To collect Coleoptera, Orthoptera and Hemiptera, it is necessary to carry several bottles with alcoholic saw dust.

The way to prepare it is to fill up the bottle to the third part with thin saw dust; and then pour in a wine glass of alcohol (1), or strong spirit, and shake it together for about five minutes.

In that bottle, must be put all the Insects above mentioned.

On returning from an expedition, take them out of the bottles and pin the Coleoptera on the right elytra (2) in order that the point of the pin (3) may emerge under the thorax, between the second and the third pair of legs.

The Orthoptera and Hemiptera must be pinned on the thorax, and the pin must come out between the two foremost legs.

They must be put with symmetry in corked boxes, taking

(1) If you have no alcohol or spirit, you will put in the bottle the same quantity of benzine.

(2) The wings, in form of tweezers which cover again the abdomen are the elytra.

(3) You will take care to use pins adjusted to the size of the Insect.



care to sink deeply the pins to avoid their detachment in voyage.

These boxes will be put to the sun for a few days, and when you see that the Insects are dry, you will pour a small quantity of benzine (1) in the box and paste bands of paper all around.

If you have no pins, or corked boxes, send them in the same bottles in which they have been collected. If so, the bottles should be filled up completely with alcoholic saw dust, and some paper pasted round; then, by this means, if the bottles break during the voyage, the Insects will be preserved.

The Lepidoptera, Neuroptera, Hymenoptera and Diptera are collected with the butterfly net.

The specimens collected must be very perfect. The way of killing the Lepidoptera and Neuroptera is to press their thorax between the thumb finger; this must be done with

(1) The benzine is to be employed for every object of natural history which can be devoured by Insects.

All boxes containing Insects, Bird Skins, Crustaceans, etc., must be preserved by pouring benzine into them before shutting and pasted with bands of paper.



much care; because if the beautiful colours of the butterflies are spoiled, they are of no value.

The are to be pinned through the thorax and put in corked boxes like the Orthoptera and Hemiptera.

If you have no pins or cork, you can send them enclosed in pieces of paper (1), the wings bended one on the other and each specimen separately.

When you have two or three hundred specimens, you must pack them in a wooden box in good order, pour some benzine in it, and paste paper all over the box.

The Hymenoptera and Diptera must be pinned in the same way through the thorax and exposed to the sun (or to the heat of a fire (2) a few minutes); they must absolutely be pinned and sent in corked boxes; because in the bottles, their wings would be damaged.

Insects are to be found everywhere, under stones, moss, bark of decayed trees, in detritus (3) of all sorts, in mushrooms, flowers, ripe fruits, in water, in dung, in soil, in

(1) These pieces of paper should be folded in the form of a triangle and of a size according to the Insect.

(2) This exposition near the fire is for killing them.

(3) Detritus or all matter in decomposition.



the caverns, in dead bodies, in dried and rolled leaves, on sand, near the sea, and inder seaweeds, in ant's nests, on trunks of trees, especially those thet have much sap running, on long grass and herbage, in plains, etc., etc., etc.

With an open umbrella lined inside with light linen cloth, and a stout stick, very profitable collections may be made by striking the bushes over the umbrella.

Aquatic Insects must be caught with the landing net (1).

## MARINE, LAND AND FRESH WATER SHELLS

Shells, as indicated by their name, are to be found in the sea, on land, and in fresh water.

Several species have an operculum (it is a small piece of the same matter of the shell, which is fustened to the body of the animal).

It is used as a door : when he wants to come out, he opens

(1) This net is employed for the aquatic Insects and Shells, and also for sweeping the long grasses and herbages in the plains, by that way you can take large quantities of Insects.



it, and shuts it when he likes; then he is sheltered from birds and insects which are fond of them.

It must be preserved; because it is useful for the recognition of the species.

Marine Shells are to be collected in quantity, dredging the sheltered places as near as possible of the reefs of rocks; the nearer you approach the more shells you will collect.

On the rocks and in the crevices, you will find many shells.

On the sea shore, at the new and full moon, the collector should go and turn the stones and will be amply repaid for his trouble.

After severe gales of wind, many valuable species brought from very far will be found; you must not miss these occasions.

Fresh water shells are to be collected in the rivers, lakes, and ponds; they are found in the mud, on the edge of the rivers or rivulets and are generally very abundant; they must not be neglected. Small species are as interesting as the largest.

Land Shells are found under stones, in clefts of rocks under dried leaves, and other vegetable detritus, on trunks,



leaves, and branches of trees, under decayed trees, moss, etc., etc.; but always in sheltered, warm, and wet spots.

The calcareous mountains, when well forested, are very good places for collecting shells.

They only have value when collected adult and alive.

To know when a shell is adult, whatever may be its size, is when the lip (or the edges of the mouth) are grown round and firm enough to resist the pressure of your finger nail.

Young specimens will be collected when adults cannot be found.

To collect Shells, it is necessary to be provided with a basket with moss or other soft matter; place the shells on it, separating the large from the small species.

When collected, put them in a pail with lukewarm water and cover it; when you will see the animals coming out of the shell, draw off quickly the water, taking care none fall down, and pour on them boiling water enough to cover them; a few minutes after, pour cold water and then with a pin or needle take out the animals as you would do with the snails used as food.



In doing this delicate operation, take much care not to pierce the shell or break the mouth.

When the animals are out, wash the shells and shake out the water and the interior dirt and place them on paper to dry ; but not to the sun.

When dry, put some cotton in the mouth and paste the operculum on it.

Small species will be packed in glass tubes or small boxes with cotton.

Should they be large, wrap each one separately in a paper and pack them in a box with soft substance.

It is useless to clean the very small species.

Others, for their particular forms cannot be cleaned, kill them and put them near ant's nest ; if the ant's come to them they will eat entirely the animals, and the work will be done.

If not, let them dry and pack them with care as the others.

Send a few specimens of each species in bottle with spirit to study the animals.

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## SEEDS

Seeds of all tree, bush, or plant belonging to the country producing beautiful leaves or handsome flowers are to be collected.

They must be well ripe and dried in shade.

Pack them in small bundles, each species separately.

## CRUSTACEOUS

Crabs, Prawns, Lobsters, etc., are Crustaceous.

They must be sent in spirit as the Reptiles.

Large species can be dried by sun and packed in paper.

## ARACHNIDES & MYRIAPODA

Spiders are Arachnides, Centipeds are Myriapoda; it is necessary to preserve and send them in very strong spirit; otherwise they dissolve themselves in the voyage.



## FOSSILS

All petrified objects found in the water or in the earth as Rocks, Shells, Bones, Plants, Animals, etc., are fossils.

They have value when they are beautiful specimens and very complete.

Pack them with paper or soft substance in small boxes.

## BRIGHT INSECTS AND SHELLS

Jewellers, Plumassiers, Florists, Modists and others tradesmen make a great use of them.

They must be collected by hundreds and thousands.

Women and children can be very useful for that collect.

Put them to dry by the sun and pack them by species in boxes in which you pour benzine and paste band of papers all over.

The more you collect, the better; because it is more easy to sell them when you have a great quantity of each species.



## GENERAL REMARKS

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All descriptions of Natural History Collections may be easily sold if they are well collected and arrive in a perfect state of preservation.

They must be sent home frequently and in in small portions; for the following reasons.

1° It is easier to sell small than large collections.

2° If the package or preparation has been done badly, your correspondent will forward you immediately new instructions which will permit to make the next sending with more success.



It will be very good when collecting to be in relation with a naturalist (1) for the sale of your collections.

To collect Reptiles, Fish, Insects, and Shells, it is necessary to buy the following utensils.

Benzine.

Tin boxes for Insects.

Several bottles.

Glass tubes or phials.

Digger.

Butterfly, hoop, and water Nets.

Umbrella for Insects.

Cork.

Pins for Insects.

Pill Boxes of several sizes.

Insect powder.

Flax and Cotton.

Nippers.

You will collect with preference Reptiles, Fish, Shells, and among the Insects Coleoptera and Lepidoptera.

(1) I make the offer to those who will send me some collections well preserved, to sale them for their account or buy them at the prices which I have indicated.



25 specimens of each species of Reptiles, Fish, Crustaceous, and Arachnides, are sufficient.

Coleoptera, Lepidoptera and Shells, one hundred specimen of each, and fifty of other Insects.

One thousand seeds of palm trees of each species, and two or three pounds of seeds of all the trees, bushes and plants of the country.

Large beetles are not to be pinned; you may put them separately in paper, and dried by sun, eight or ten days are sufficient. Then, pack them in a box with saw dust, or any soft substance.

Very large species of Marine Shells, Reptiles, Fossils, etc. will be sent, only by order, to avoid the cost of transport which in many cases should be more than the value of the object.

One specimen of each species of all the animals collected, should have a number attached to it, corresponding to one in a list in which you will indicate exactly the country where found, the month and the year when, the local name, the habits and others particulars which you judge interesting.

This list will be sent in the same box as the objects.



When you will change your residence, you will change your collecting bottles, in order to send in each of them only those animals which have been collected in the same place.

Reptiles are abundants in spring and summer; the lest season for Insects and Shells is the rainy one; the more it rains, the more Insects and Shells you will find.





## FOR SALE

### COLLECTIONS FOR STUDY

Typical Collection of Birds classified and named after the celebrated works of Professors Bonaparte, Gray, Gould, Sclater, etc..... 100 specimens £ 8. 0.0

Typical collection of Insects (specimens of all the orders)..... £ 1. 0.0

Typical Collection of Insects Coleoptera, classified and named after the celebrated Genera of Professor Lacordaire..... 100 specimens £ 1. 0.0

Collection of Insects of all orders 100 specimens £ 1. 0.0

Typical Collection of Insects Coleoptera, by family, genus, or country..... 100 specimens £ 1. 0.0

Collection of Bright Insects Coleoptera, classified and named..... 100 specimens £ 1. 0.0

Typical Collection of Marine, Land and Fresh Water Shells, classified and named after the celebrated works of Prof. Pfeifers, Chenu, Reeves, Deshayes, etc..... 100 specimens £ 1. 0.0



These collections of Study are proper for Museums, Scientific Institutions, and Schools, as well as for every person who desire to study natural history.

They contain many rare species and my purpose in disposing of them at so low a price is to make them accessible to every one.

This Study will procure infinite enjoyment to all those who will dedicate themselves to it.

With love of collections, there is no more useless walk, all is interesting each day you discover new marvels of nature.

They are very good for acquiring order and knowledge and you become useful to your country by your discoveries.

Who can deny that the greatest part of the revenues of all governments is due to those learned men who have dedicated themselves to this science?

Coton, tobacco, potatoes, coffee, tea, indigo, cochineal, silk are all products of nature and some travelers (mostly naturalists) are those who have been to search for; sometimes in very remote countries and to the cost of their lives, to try their acclimatation in their country or to make appreciate their value and their goodness.



Much has been done ; but the field of explorations is still very large and many centuries will pass before it is drained.

Therefore, every one must work boldly and encourage every where these studies which are unhappily too much leaved off at the present time.

For that, it is necessary that all those who have zoological riches accumulated, give their duplicates to scientific Institutions or to young and poor amateurs, or dispose of them at very low prices accessible to every one.

It is also necessary that all the governments give important prize, and rewards to all those who make new discoveries useful to their country, and encourage by all means the study of this science which can produce fruitful result in benefit of humanity.





LIST  
OF THE  
PRICE USTENSILS<sup>(1)</sup>  
NECESSARY FOR COLLECTING  
REPTILES, FISHES, INSECTS, SHELLS, etc.

---

Benzine bottle.....	£0. 1.0
Tin box for collecting Insects, from.....	» 1.6
Bottle — — .....	» » .3
Glass tubes or phials, doz.....	» 1.»
Digger .....	» 2.»
Butterfly nets, from.....	» 1.»
Sweeping and water, nets, from.....	» 2.»
Umbrella for Insects from.....	» 8.»
Cork in boards, per doz, from.....	» 2.6
Pins for Insectes, per thousand, from.....	» 1.6
Pill boxes, per gross, from.....	» 4.»
Corked boxes for Insects, from.....	» 1.6
Wooden box same size.....	» 1.»
Insect powder, per bottle.....	» 1.»
Flax, per pound.....	» » .6
Cotton-wadding, per sheat... ..	» » .6
Nippers — — from.....	» 1.»
Fishing rods with accessory, from.....	» 2.»

(1) Other Ustensils for collecting, Mammals, Birds, etc., are to be obtained at, 55, Great Russell St., W. C.



# A. BOUCARD

## GENERAL NATURAL HISTORY AGENCY

DEALER IN

MAMMALS, AND BIRD SKINS, REPTILES, FISHES, INSECTS,  
SHELLS, EGGS, SEEDS, etc., etc., etc., etc., etc.

### **PURCHASE. — SALE. — EXCHANGE**

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on Commission

*55, Great Russell Street, Bloomsbury, W. C.*

LONDON

**Opposite the British Museum**

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A. BOUCARD undertakes the sale of Collections and Books of natural history; and offers his services to Scientific Institutions, Authors, for the sale of their Works.

The situation of his establishment opposite the British Museum and his relations with the principal Museum of natural history in all part of the world, offer great opportunities for the sale of the Collections and Books which may be intrusted to his care.

He can procure for his clients zoological collections from all parts of the world; as well as scientific Books and apparatus for collecting and preserving collections. All offers of purchase or sale submitted to him will be carefully examined and answered immediately.



A. B. wishing to increase the number of his correspondents in all parts, begs all persons who have collections to communicate with him, for the purchase or exchange of their duplicates on advantageous terms.

Museums and Scientific Institutions are invited to send him a list of their desiderata, which he will undertake to supply in reasonable time, even in the case of the rarest animals.

Professors who require specimens of natural history for study preserved in alcohol or otherwise, can send their instructions which will be well attended to.

A. B. reminds his friends and naturalists in general, that he has now in store 30,000 species of Insects, 2,500 species of Birds, Mammals, Reptiles, of Fishes, some Eggs, Shells, Seeds, Bright Insect for Jewellers, Florists and Modists, etc., etc., etc., etc.

Every month he receives new Collections from his Travellers and Correspondents.

A. B. is very much interested with Coleoptera from Vaucouver, Oregon, California, Sonora, Texas, New England, Mexico, Guatemala, Salvador, Honduras, Costa Rica, Veragua, Nicaragua y Panama. He wish to acquire collections from these countries, either by exchange or by purchase.

He thanks sincerely all his friends and correspondents who have honoured him with their patronage to the present time, and hopes they will continue and help him in the work he has undertaken which is to facilitate to all the study of natural History.

A. B.























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